



STATEMENT OF BASIS
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BAQ Engineering Services Division

Company Name: Carlisle Finishing, LLC.
Permit Number: TV-2180-0003

Permit Writer: Michael G. Daugherty
Date: DRAFT

DATE APPLICATION RECEIVED: June 16, 2014

FACILITY DESCRIPTION This facility operates a textile finishing mill in Carlisle, South Carolina. 'Gray' goods are bleached, dyed and printed according to customer specifications. A textural finish is applied according to specifications from the customer. The major processes associated with the facility production include lay-out and sewing of greige goods, preparation, dyeing and finishing. There is also steam generation from the four (4) existing boilers which are used in textile production. Three (3) of the boilers can operate on either coal or natural gas and the fourth boiler operates on natural gas with propane as a back-up fuel. The PM emissions from the three coal fired boilers are controlled by three multi-clones; one for each boiler, and a Scrubber for the control of HCl.

PROJECT DESCRIPTION The facility is requesting the renewal of their Title V Operating Permit

CHANGES SINCE LAST OP ISSUANCE The only equipment changes at the facility since the last issuance is the removal of SW14 (screen print west #14).
The coal fired boilers will now be subject to 40CFR63 Subpart JJJJJJ.

SOURCE TEST REQUIREMENTS The three coal fired boilers in Unit ID 01 are required by SC Regulation 61-62.5 Standard
No. 1, Section VI to conduct source tests every two years for particulate matter.

SPECIAL CONDITIONS, MONITORING, LIMITS

EMISSIONS

FACILITY WIDE EMISSIONS		
Pollutant	Uncontrolled Emissions	Controlled/Limited Emissions
	TPY	TPY
PM	2,970.2	794.1
PM ₁₀	593.9	N/A
PM _{2.5}	216.5	N/A
SO ₂	1,672	N/A
NO _x	748.8	N/A
CO	361.2	N/A
VOC	13,061	N/A
Lead	0.63	N/A
CO ₂ e	457,658	N/A
HCL	52.5	<10
Ethylene Glycol	36	<10
Formaldehyde	20.7	<10
Glycol Ethers	7.6	<10
Hydrogen Floride	6.6	<10
Methanol	4.42	<10
Total HAPs	133.5	<25



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OPERATING PERMIT STATUS The facility has a current Title V Operating Permit which expired December 31, 2014.

REGULATORY APPLICABILITY REVIEW

Regulation	Comments/Periodic Monitoring Requirements
Section II.E - Synthetic Minor	The facility is a Title V source and has taken federally enforceable limits of 10/25 to remain a minor source of HAPs.
Standard No. 1	The facility has three coal fired boilers (Unit ID 01) and one natural gas fired boiler (Unit ID 02) which will be subject to PM, SO ₂ and Opacity limits imposed by this standard. Opacity limit is 40% for Unit ID 01 and 20% for Unit ID 02.
Standard No. 3 (state only)	The facility does not have any Waste Combustion/Reduction processes.
Standard No. 4	The facility has equipment in Unit ID's 03 – 11 which will be subject to the appropriate opacity and PM limits.
Standard No. 5	All pre-1979 (Unit IDs 08 and 09) coating applicator systems are subject to this standard under Section II, Part C.1.a (Surface Coating of Paper, Vinyl, and Fabric). This condition limits VOC coating content to less than 2.9 pounds of VOC/gallon of coating excluding water and exempt solvents, delivered to the fabric or paper coating applicator system.
Standard No. 5.2	The fuel burning sources at the facility were installed prior to 6/25/2004 and have not been modified since the applicability date. In 1998, a low NO _x burner was installed on boiler BR04 to allow it to operate 8760 hours per year.
Standard No. 7	The facility has four boilers which total more than 250 x 10 ⁶ Btu/hr therefore they are one of the 28 source categories. The three coal fired boilers were installed in 1956 before the regulation was promulgated and therefore are grandfathered in. The fourth boiler is a natural gas fired boiler and was manufactured in 1979. It was moved from another facility and installed in 1991, and was allowed to operate for a limited time so as not to exceed the 40 tpy NO _x significant increase to remain minor for PSD. In 1998, the facility installed a low NO _x burner which allowed the boiler to operated 8760 hours without exceeding the significant increase threshold for NO _x without subjecting the boilers to PSD. All though the facility is a major source of VOCs for PSD it has not had any additions that were above the significant threshold for any PSD regulated pollutants therefore it has not triggered PSD at this time.
61-62.6	This facility does not produce any fugitive PM emissions
40 CFR 60 and 61-62.60	This facility does not have sources subject to any NSPS standards. Boilers #1, #2 and #3 were installed prior to the applicability date of Subpart Dc. The package boiler #4 (Unit ID 2) was installed at Cone Mills in 1991. However, this boiler was moved from another plant where it had been constructed in 1979, therefore, it would also not be subject to Subpart Dc. Also all of the VOC tanks were installed prior to the applicability date of Subpart Kb. The emergency fire pump and generator were manufactured prior to the compliance dates for Subparts IIII and JJJJ.
40 CFR 61 and 61-62.61	This facility does not contain any processes/operations that emit the pollutants subject to this standard (asbestos, benzene, beryllium, coke oven emissions, arsenic, mercury, radio nuclide, radon, or vinyl chloride).



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Regulation	Comments/Periodic Monitoring Requirements
40 CFR 63 and 61-62.63	<p>The facility is a major source for HAPs however the facility has taken federally enforceable limits of less than 10 TPY of a single HAP and less than 25 TPY of total HAP before the compliance date in order to avoid being subject to Subpart DDDDD- (Industrial, Commercial & Institutional Boilers and Space Heaters).</p> <p>Unit ID 01 - The boilers became subject to Subpart JJJJJ on March 21, 2014, since they burn coal as the primary fuel.</p> <p>Unit ID02 - The boiler is not subject to JJJJJ since it burns only natural gas and propane as a back up fuel.</p> <p>Unit I.Ds. 07, 08, 09, and 11 are subject to Subpart OOOO- (Printing, Coating, Slashing, Dyeing or Finishing of fabric and other textiles).</p> <p>The facility has an emergency diesel fire pump and an emergency generator that will be subject to Subpart ZZZZ</p>
61-62.68	<p>The facility does not store or use chemicals subject to 112(r) above the threshold quantities.</p>
40 CFR 64	<p>The three coal fired boilers (BR01 – BR03) are subject to Standard 1 limit of 0.6 lb/10⁶Btu each. The potential to emit of each boiler is in excess of the Standard 1 limit and each uses multi clones to control PM emissions below the Standard 1 limit therefore the coal fired boilers are subject to CAM and since their controlled PM₁₀ emissions are above the major source threshold of 100 tpy they are each considered large PSEUs. The boilers also exhaust through a scrubber for the removal of HCL and while doing so the scrubber also removes some PM from the exhaust stream but the facility does not take any control from the scrubber and therefore it is not considered under CAM.</p> <p>The fourth boiler (BR04) which is natural gas fired and does not use any control device therefore it is not subject to CAM.</p>

MODELING REVIEW

Regulation	Comments/Periodic Monitoring Requirements
Standard No. 2	<p>The facility has demonstrated compliance through modeling; see modeling summary dated July 8, 2016.</p>
Standard No. 8 (state only)	<p>The facility is subject to 40 CFR 63 Subpart OOOO therefore modeling for the standard is not required.</p>

PUBLIC NOTICE

This Title V Permit will undergo a 30-day public notice period and a 45-day EPA comment period in accordance with SC Regulation 61-62.1, Section II(N). This permit was placed in the *Union County News* on September 26, 2016. The comment period was open from September 26, 2016 to October 25, 2016 and was placed on the BAQ website during that time period.

SUMMARY AND CONCLUSIONS



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It has been determined that this source, if operated in accordance with the submitted application, will meet all applicable requirements and emission standards.

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